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# TECHNICAL BULLETIN

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## Air and Water Infiltration
## MSR

On May 12, 2011, McElroy Metal, Inc. tested its MSR Wall Panel for air leakage and water penetration.

**TEST METHODS:**

Air Leakage: ASTM E283-04, *"Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen"*

Water Penetration: ASTM E331-00, *"Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference"*

**TEST SPECIMEN:**

McElroy Metal, Inc. 24 Ga. 16 in. wide MSR Wall Panel. Panels were attached to 16 ga. intermediate supports using a 2" x 2" x 2" 16 ga. clip using # ¼" -14 x 1-¼" self drilling hex head fasteners (2 per clip) at 10'-0" spacing. The panels were attached to the clips using one #12-14 x 1-¼" self drilling hex head fastener. A 3/32" x 3/8" Butyl tape sealant was field applied in the sidejoint prior to panel engagement. The specimen was tested both vertically and horizontally.

**TEST RESULTS:**

| | Air Infiltration | | | Water Penetration | | | |
|---|---|---|---|---|---|---|---|
| Specimen | Static Pressure Differential (psf) | Air Infiltration rate (cfm/lf) | Air Infiltration rate (cfm/sf) | Static Pressure Differential (psf) | Rate (gal./hr/sf) | Test Duration (min) | Water Infiltration |
| MSR 16 in. 24* Ga. | 1.57 | 0.000 | 0.000 | 6.24 | 5 | 15 | None |
| MSR 16 in. 24* Ga. | 6.24 | 0.007 | 0.005 | 15.0 | 5 | 15 | None |
| | | | | 20.0 | 5 | 15 | None |

Test Report No. : T194-11 Dated : May 12, 2011

*Test results are valid for heavier gauges or thicknesses.